# **APPENDIX E**

**Analysis of Project EASI/ED Subsystems** 

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#### 1. PROJECT EASI/ED SUBSYSTEM DEFINITIONS

This section of the appendix presents a description of the Project EASI/ED subsystems.

#### 1.1 Program Management and Oversight Subsystem

The Program Management and Oversight subsystem will maintain aid program information and will ensure that schools, lenders, guaranty agencies and servicers qualify and comply with program rules. In this context, this subsystem will determine the schools and aid organizations eligible to participate in Title IV aid programs and will process their certification information, as well as maintain general school and aid organization information.

This subsystem will allow authorized parties to maintain and monitor information (e.g., financial, performance related) about the aid organizations and the schools eligible to participate in Title IV aid programs. In addition, users will be able to maintain aid program information, such as program description and functional parameters.

This subsystem will process the requests or inquiries (correspondence and phone calls) received from participants, schools, aid organizations and the general public. This subsystem will maintain and monitor contract information including the data and time of calls and correspondence, contact priority information, and the inquiry subject and response. Information provided to the public could include paper forms such as deferment, forbearance or disability forms, or electronic media such as web page information. As part of its functionality, it will handle complaints and resolve conflict cases when the loan has been mishandled or lost, and for miscellaneous participant complaints.

#### 1.2 Aid Application Subsystem

The Aid Application subsystem will receive aid applications and corrections submitted by participants (or schools on behalf of participants) and edit, review, and confirm the information reported in the application. The subsystem will also maintain participant signature authorization to endorse aid applications, multi-year promissory notes, and waivers to release information to external agencies. The subsystem will first assess whether the participant is eligible for student financial aid, and then if eligible, makes the necessary calculations for aid eligibility determination. The subsystem will notify participants and other authorized parties of calculated eligibility determination. If the participant is not eligible, the subsystem will notify the participant of the points of contact for information reconciliation. The subsystem will also initiate the aid renewal process by providing the participant with prior year aid application information for confirmation.

The subsystem will assist participants in making repayment option decisions by allowing them to explore hypothetical financial scenarios based on factors such as different amortization schedules or estimated future salaries for a given career path.

This subsystem will also constitute the main source of information in providing schools with the participant's aid history in order to assist them in creating aid packages.

#### 1.3 Aid Origination and Disbursement Subsystem

The Aid Origination and Disbursement subsystem will manage the entire aid origination activity and will process the student level origination records and disbursement information supplied by schools. This information is passed to the Financial Services Subsystem to disburse funds.

This subsystem will authorize the payments to schools, state agencies and fund sources and will support the invoice disbursement method, the schedule disbursement method and the drawdown disbursement method.

This subsystem will support the disbursement of interest and special allowance to lenders, administrative expense allowances to guaranty agencies, and administrative cost allowances to schools (for the Pell Grant program and the Campus-Based Program).

In addition, this subsystem will maintain information about the Federal contributions to the State-Student Incentive Grant (SSIG) Program.

The subsystem will also track the enrollment status of students.

#### 1.4 Aid Repayment Subsystem

The Aid Repayment subsystem will manage the entire repayment process for student financial aid, starting immediately after the origination of the aid and continuing through the handling of defaulted loans, where necessary.

In the repayment initiation phase, this subsystem will provide repayment counseling to participants, and will allow them to make informed decisions regarding their repayment options selection.

Over the course of repayment, the subsystem will enable the billing of borrowers, maintain loan repayment information, process deferments, forbearances, cancellations and loan transfers, as well as changes to the participants' repayment options and terms, for Direct Loans. The subsystem will process loan payment information and update account information accordingly. For defaulted loans, the subsystem will provide skip trace request assistance by interfacing with the IRS and the Postal Service, and will attempt collection following due diligence procedures. If such procedures prove unsuccessful, the subsystem will provide wage garnishment management and fund offset information, where appropriate, and will assign the defaulted loans to collection agencies.

This subsystem will process the loan consolidation requests received from participants, certify the loan information for the loans to be consolidated, managing the flow of information for those loans. If any loan holder balances are present, the subsystem will perform netting out of over/underpayments.

#### 1.5 Financial Services Subsystem

The Financial Services subsystem will provide a centralized point for disbursing and recording payables and receivables from and to the Department of Education/OPE/SFA.

As such, this subsystem will verify fund availability and will provide budgeting information for various programs. The subsystem will provide school drawdown information and certified payment requests to the Department of Education's Chief Financial Office, and receive in return trace numbers for the payment requests and payment rejects.

The subsystem will also process repayment information, update the ledgers and send summarized repayment information to the Department of Education's Chief Financial Office.

In addition, this subsystem will record the total service usage incurred (e.g., for Title IV WAN usage) by schools, school servicers, guaranty agencies, guaranty agency servicers and any third party who should be charged and will calculate and bill the system users for the costs incurred.

#### 1.6 Decision Support System Subsystem

This subsystem takes into consideration, and will provide the functionality for, optimized information retrieval, simulation, statistical analysis, forecasting and other analytical needs implied by a group of Project EASI/ED BARD requirements identified by the team. The Decision Support System subsystem will comprise four basic processes as follows:

- 1. **Exploration -** The subsystem will allow users (e.g., auditors and program reviewers) to access, analyze and explore transaction histories by school, student and program. Users will have the ability to view the business information from different angles and analyze the effect of key performance indicators by progressing from one level of detail to the next.
- 2. **Simulation -** The subsystem will allow users to build models for financial aid packages and financing options, repayment options, Campus-based award procedures, as well as program legislation and policies. For instance, participants will be able to simulate their likely eligibility for Federal financial aid and perform "what-if" analysis to determine their potential costs and repayment options based on the financing alternatives available.
- 3. **Trend Analysis and Exception Reporting -** The subsystem will allow users to analyze the evolution of data patterns over time, determine trends and identify values that fall outside a specified range. As such, school and aid organization (e.g., lender, guaranty agency) performance data will be monitored, and the system will automatically flag exception cases performance factors that do not statistically conform to a data pattern.
- 4. **Statistical Sampling -** For data repositories containing large amounts of data, such as the transaction histories for all schools, students and programs, the subsystem will allow the users to perform statistical sampling, using statistical and mathematical techniques, in order to identify useful patterns in the data.

# 2. PROJECT EASI/ED SUBSYSTEMS IMPLEMENTATION OPTIONS PREFERENCE ANALYSIS

This subsection presents the results of the preference analysis performed on each of the Project EASI/ED subsystem implementation option combinations. Within a Project EASI/ED subsystem, the following analysis and calculations were performed to determine a weighted score for each implementation option combination.

- The construction hours for each process, within a Project EASI/ED subsystem, were determined using the mappings between the Project EASI/ED processes and requirements and the assignment of hours to each requirement based on the High, Medium, Low technical complexity analysis. For any process the specific requirements supporting that process can be identified and the corresponding hours assigned to those requirements can be totaled resulting in the construction hours for the process.
- For each implementation option combination, the processes associated with each implementation option were totaled resulting in total construction hours for each implementation option within an implementation option combination.
- Each implementation option's construction hours were divided by the total construction hours for the Project EASI/ED subsystem revealing what percentage the implementation option composes of the total Project EASI/ED subsystem in terms of construction hours.
- Weighted scores were determined based on ED's original preference order for sequencing the implementation options and a weighting factor that was added for this analysis. The following information shows the ranking and the weighted score for each implementation option:

Ra	<u>nk</u>	Weights
1.	Outsourcing	5
2.	COTS application (standard)	4
3.	COTS application (custom or supplemented)	3
4.	Reuse	2
5.	Reengineering	1
6.	Custom development	1

• The percentage for each implementation option, within an implementation combination, was multiplied by the weighted score assigned to that implementation option. This resulted in the weighted score for each implementation option. The weighted scores for each implementation option, within an implementation combination were added together resulting in the weighted scores presented in Table E1-1 on the next page. The higher the score the more preferable the implementation option combination based in the weights presented above. The table presents the implementation option combinations from most preferable (highest score) to least preferable (lowest score).

Project EASI/ED Subsystems	Impler	mentation Options Eva	luation
_	Outsource and Custom		
Aid Application Subsystem	2.37	2.35	
	Outsource, Reuse, and Custom	Reuse, Outsource, and Custom	
Aid Origination and Disbursement Subsystem	3.19	2.60	
	Outsource and Custom	COTS and Outsource	Reuse, Outsource, and Custom
Aid Repayment Subsystem	4.78	4.24	4.00
	сотѕ	Reuse	
Financial Services Subsystem	3.00	2.00	
	Outsource, COTS, and Custom	COTS, Outsource, and Custom	
Program Management and Oversight Subsystem	2.51	2.39	
	COTS		
Decision Support Subsystem	3.00		

**Table E 2-1 Project EASI/ED Implementation Options' Weighted Scores** 

# 3. PROJECT EASI/ED SUBSYSTEM IMPLEMENTATION OPTIONS ANALYSIS

This subsection presents possible implementation options (i.e., COTS application, outsourcing, reuse, reengineering, or custom development) for each of the Project EASI/ED subsystems and identifies the implementation options reflected in the transition plan schedule. Subsection 3.1 presents the results based on the preference order of Reuse, COTS, Reengineering, and Custom and subsection 3.2 presents the results based on the preference order of Outsource, COTS, Custom, and Reuse and COTS, Outsource, Custom, and Reuse.

Tables will be used in each subsection to present the possible implementation options based on specific groupings and the recommended implementation options given the specific grouping.

#### 3.1 Reuse Analysis (Scenario 1)

Tables E 3-1 through E 3-3, on the next three pages, show the results of the reuse analysis for Project EASI/ED by subsystems. The Project EASI/ED processes are grouped by subsystem, and for each process the percentage of the process that can be implemented through reuse of current systems, COTS, or custom development is shown. The only exception to this is any work shown for PEPS which is proposed to be done as a reengineering effort.

#### 3.1.1 Aid Application and Aid Origination and Disbursement Subsystems

Table E 3-1 presents the results of the reuse analysis on the Aid Application and Aid Origination and Disbursement Subsystems.

													_		
Project EASI/ED Subsystems and Processes	/cg	5 (6°)	/	5/4	EXCHOSS	13 \c	5/5	5/6	5 MI	k ACT	15 /st	25/24	MS TI	MAN	000
Aid Application Subsystem															
Manage Application			33												67
Manage Renewal Application			66												34
Perform Financial Simulation															100
Manage Aid Package														$\sqcup \sqcup$	100
Manage Aid Package Status															100
Obtain Eligibility Assessment Information			73											Ш	27
Assess Participant Eligibility		$oxed{oxed}$	67												33
Aid Origination and Disbursement Subsystem															
Reconcile Drawdown															100
Reconcile SSIG Expenditure															100
Reallocate Fund	100														
Check Origination												66			34
Edit School Disbursement Record												50			50
Manage Lender Disbursement Information															100
Originate Consolidation Direct Loan						34									66
Process Participant Disbursement Request															100
Authorize Invoice and Schedule Disbursements												66			34
Confirm Administrative Expense Allowances and Reinsurance Claim															100
Allocate Fund	80														20
Maintain Enrollment Status															100
Process Administrative Cost Allowance												100			
Process Interest Claim					100										
Process Special Allowance					100										
Authorize Drawdown School Disbursements															100
Manage Perkins Loan Cancellation															100
Manage State Sponsored Instructional Grant (SSIG) Authorization															100
Maintain Authorization Fund	1											100	1	H	100
Process Initial Authorization	1	<del>                                     </del>										100			

Table E 3-1 Reuse Analysis of Aid Application and Aid Origination and Disbursement Subsystems

## 3.1.2 Aid Repayment and Financial Services Subsystems

Table E 3-2 presents the results of the reuse analysis on the Aid Repayment and Financial Services Subsystems.

		5/	5/	5/2	EXPRE	\$/ \$1 <sup>9</sup> / <sub>5</sub>	5/	9/	9/	St. A.C.	105/pt	25/4	ws/	anka C	55° C
Project EASI/ED Subsystems and Processes	_/ ઇ	8 <sup>9</sup> /5	5 /G	/ &	/ 🛠	<u> </u>	5/5	5/9	5/11	2/ 4g	*/ & <sup>(</sup>	) &	·/ «	<u>`// c</u>	<u>ي /ر</u>
Aid Repayment Subsystem															
Assign Collection Agency														100	
Assign Defaulted Loan	_													100	
Manage Wage Garnishment														100	
Process Litigation Assignment														100	
Track Participant														100	
Manage Debt Collection														100	
Certify Loan Information	4					100									
Manage Aid Status														100	
Process Billing Information														100	
Process Consolidation Request						66									34
Manage Consolidation Loan Information						66									34
Manage Repayment Counseling															100
Process Loan Payment														100	
Select Repayment Option						16									84
Manage Fund Offset														100	
Financial Comicae Cubayatam	-														
Financial Services Subsystem	-														
Maintain Account Payable	+	-							-					100	
Maintain Account Receivable	+	<del>                                     </del>			<u> </u>				├					100	
Maintain Financial Control	+	<u> </u>							-					100	
Manage Fund	4	ļ							<b>├</b>					100	
Process System Usage Cost	4	<u> </u>					<u> </u>		-					100	
Process System Usage Payment														100	

Table E 3-1 Reuse Analysis of Aid Repayment and Financial Services Subsystems

## 3.1.3 Program Management and Oversight and Decision Support Subsystems

Table E 3-3 presents the results of the reuse analysis on the Program Management and Oversight and Decision Support System Subsystems.

			, ,	, ,			, ,	, ,	, ,		, ,		, ,		
					EXPRES	, /				/				/. /	//
		<u> </u>	<u>_</u> _/	<u> </u>	EXPRO	61 <sup>3</sup> /3	_ /	<u>_</u> _/	5 M	1.RO	10° /4	25/ St	(s /	MAN	55/c
Project EASI/ED Subsystems and Processes	/3	5/5	5/3	<u> </u>	<u> </u>		5/5		2 M	1/1/2	100/4	/4	W/ 1/3	// 3	<u>// c</u>
Program Management and Oversight Subsystem															
Process Phone Call														100	
Process Complaint														100	
Process Correspondence														100	
Manage Cohort Default Rate										100					
Manage Cohort Default Rate Appeal															100
Manage Aid Organization Program Financial Oversight											40				
Information	1										18				82 100
Manage Program Information											50				
Manage Aid Organization Audit Review Information	1										50 100				50
Manage School Appeal Manage School Audit Information											100				100
Manage School Closure											33				100 67
Manage School Eligibility											30				70
Manage School Performance											30				100
Manage SSIG Application															100
Manage Aid Organization Default Rate											30				70
Manage School Business Information											30				100
Manage School Ownership											50				50
Track Waiver															100
Manage Aid Organization Appeal											50				50
Manage Aid Organization Performance															100
Manage School Sanction											50				50
Process School Data															100
Decision Support Subsystem															
Exploration														100	
Trend Analysis and Exception Reporting														100	
Simulation														100	
Statistical Sampling										<u> </u>				100	

Table E 3-1 Reuse Analysis of Program Management and Oversight and Decision Support System Subsystem

#### 3.2 Other Implementation Options Analysis (Scenarios 2 and 3)

The tables in this subsection present the Project EASI/ED subsystem, its processes, and the associated implementation options for that process. Implementation choices as recommended in the Project EASI/ED ASDD: IOA are marked with a single "X". Choices marked with a "XX" are secondary choices made because the specific grouping caused the primary choice to no longer be valid. The grayed areas indicate the implementation option recommended given the specific grouping.

#### 3.2.1 Financial Services Subsystem Implementation Options

Implementation of the Financial Services subsystem can be achieved either through a COTS application implementation or through reuse of specific components of various current Title IV systems. Table E 3-4 presents the implementation options grouped by COTS application. Based on implementation option preferences, weighted ranking analysis for each implementation option, and an assessment of technical risk and feasibility, the COTS application implementation option was chosen and used in the development of this transition plan schedule.

Project EASI/ED Subsystems and Processes	COTS Candidate	F	Re-Use Candidate	Outsourcing Candidate	Custom
Financial Services Subsystem					
Maintain Account Payable	Х	Χ	EDCAPS/GAPS, LSS		
			EDCAPS/FMSS, LSS,		
Maintain Account Receivable	Х	Χ	FFEL		
Maintain Financial Control	Х	Χ	FFEL		
Manage Fund	Х	Χ	EDCAPS		
Process System Usage Cost	Х	Χ	TIVWAN		
Process System Usage Payment	Х	Χ	TIVWAN		

**Table E 3-1 Financial Services Implementation Options** 

#### 3.2.2 Aid Application Subsystem Implementation Options

The implementation of the Aid Application subsystem has two feasible implementation option scenarios. The first scenario ranked implementation options by the following order of preference: outsourcing, COTS application, and custom development. Table E 3-5 presents the results of this ranking and the recommended choices of outsourcing and custom development. A COTS application is not an available choice in this scenario because the evaluation and recommendation of a COTS application was based on all five processes being implemented using a COTS application. Since the first two processes, Manage Application and Manage Renewal Application, are part of the outsourcing project, the remaining three processes were grouped with custom development.

	COTS		Outsourcing	
Project EASI/ED Subsystems and Processes	Candidate	Re-Use Candidate	Candidate	Custom
Aid Application Subsystem				
Manage Application	Х		Х	
Manage Renewal Application	Х		Х	
Perform Financial Simulation			Х	
Manage Aid Package	Х			XX
Manage Aid Package Status	Х			XX
Obtain Eligibility Assessment Information	Х			XX
Assess Participant Eligibility		<u> </u>		Χ

Table E 3-1 Scenario 2: Aid Application Implementation Options

The second scenario ranked implementation options by the following order of preference: COTS application, outsourcing, and custom development. Table E 3-6 presents the results of this grouping and the recommended choices of COTS application and custom development. Outsourcing is not an available choice in this scenario because the evaluation and recommendation of outsourcing was based on all three processes being implemented using outsourcing. Since the first two processes, Manage Application and Manage Renewal Application, are part of the COTS application implementation, the remaining process was grouped with custom development.

Project EASI/ED Subsystems and Processes	COTS Candidate	Re-Use Candidate	Outsourcing Candidate	Custom
Aid Application Subsystem				
Manage Application	Х		Х	
Manage Renewal Application	Х		Х	
Manage Aid Package	Х			
Manage Aid Package Status	Х			
Obtain Eligibility Assessment Information	Х			
Perform Financial Simulation			Х	XX
Assess Participant Eligibility				X

**Table E 3-2 Scenario 3: Aid Application Implementation Options** 

The timeframes required to complete the SDLC for each of the implementation options in both scenarios is presented in Section 4 of this appendix. These timeframes can be used to determine what impact choosing one scenario over the other would have on the overall Project EASI/ED transition schedule.

#### 3.2.3 Program Management and Oversight Subsystem Implementation Options

The implementation of the PMOS subsystem has two feasible implementation option scenarios. The first scenario ranked implementation options by the following order of preference: outsourcing, COTS application, and custom development. Table E 3-7 presents the results of this grouping and the recommended choices of outsourcing, COTS, and custom development. A COTS application is still an available choice in this scenario because the evaluation and recommendation of a COTS application resulted in two separate COTS applications being recommended: one for the customer service processes (process phone call, process complaint, process correspondence) and another COTS application for the remaining processes marked

COTS application. For each reuse candidate, the amount of functionality represented by the process(s) was a relatively small percentage of the overall functionality of the system. Based on the assumption that reuse of small portions of functionality from a Title IV system were not justified based on the technical complexity involved in a reuse implementation, the remaining processes marked as reuse candidates were marked "XX" and grouped with custom development candidates.

Project EASI/ED Subsystems and Processes	COTS Candidate	Re	-Use Candidate	Outsourcing Candidate	Custom
Program Management and Oversight Subsystem					
Process Phone Call	Х	Χ	LCS, LOS	Х	
Process Complaint	Х			X	
Process Correspondence	Х			Х	
Manage Cohort Default Rate		Χ	NSLDS	X	
Manage Cohort Default Rate Appeal				X	
Manage Aid Organization Program Financial Oversight					
Information	Х	Х	PEPS		
Manage Program Information	Х	Х	EDCAPS/GAPS		
Manage Aid Organization Audit Review Information	Х				
Manage School Appeal	Х				
Manage School Audit Information	Х				
Manage School Closure	Х				
Manage School Eligibility	Х				
Manage School Performance	Х				
Manage SSIG Application	Х				
Manage Aid Organization Default Rate		Χ	NSLDS		XX
Manage School Business Information		Χ	EDCAPS/GAPS		XX
Manage School Ownership		Χ	PEPS		XX
Track Waiver		Χ	CBS		XX
Manage Aid Organization Appeal					Х
Manage Aid Organization Performance					Х
Manage School Sanction					Х
Process School Data					Х

**Table E 3-1 Scenario 2: PMOS Implementation Options** 

The second scenario ranked implementation options by the following order of preference: COTS application, outsourcing, and custom development. Table E 3-8 presents the results of this ranking and the recommended choices of COTS application, outsourcing and custom development. Outsourcing is still an available choice in this scenario because the evaluation and recommendation of outsourcing resulted in the potential for two separate outsourcing options being recommended - one for the customer service processes (process phone call, process complaint, and process correspondence) and another for Manage Cohort Default Rate and Manage Cohort Default Rate Appeal. For each reuse candidate, the amount of functionality represented by the process(s) was a relatively small percentage of the overall functionality of the system. Based on the assumption that reuse of small portions of functionality from a Title IV system were not justified based on the technical complexity involved in a reuse implementation, the remaining processes marked as reuse candidates were marked "XX" and grouped with custom development candidates.

Project EASI/ED Subsystems and Processes	COTS Candidate	R	e-Use Candidate	Outsourcing Candidate	Custom
Program Management and Oversight Subsystem					
Process Phone Call	X	Х	LCS, LOS	X	
Process Complaint	X			X	
Process Correspondence	X			Х	
Manage Aid Organization Program Financial Oversight Information	x	х	PEPS		
Manage Program Information	Х	Х	EDCAPS/GAPS		
Manage Aid Organization Audit Review Information	X				
Manage School Appeal	Х				
Manage School Audit Information	Х				
Manage School Closure	Х				
Manage School Eligibility	Х				
Manage School Performance	Х				
Manage SSIG Application	Х				
Manage Cohort Default Rate		Х	NSLDS	Х	
Manage Cohort Default Rate Appeal				Х	
Manage Aid Organization Appeal					Х
Manage Aid Organization Performance					Х
Manage School Sanction					Х
Process School Data					Х
Manage Aid Organization Default Rate		Х	NSLDS		XX
Manage School Business Information		Χ	EDCAPS/GAPS		XX
Manage School Ownership		Х	PEPS		XX
Track Waiver		Х	CBS		XX

**Table E 3-2 Scenario 3: PMOS Implementation Options** 

The timeframes required to complete the SDLC for each of the implementation options in both scenarios is presented in Section 4 of this appendix. These timeframes can be used to determine what impact choosing one scenario over the other would have on the overall Project EASI/ED transition schedule.

#### 3.2.4 Aid Origination and Disbursement Subsystem Implementation Options

The implementation of the Aid Origination and Disbursement subsystem was based on one implementation option scenario since a COTS application was not a candidate. This scenario ranked implementation options by the following order of preference: outsourcing, reuse, and custom development. Table E 3-9 presents the results of this grouping and the recommended choices of outsourcing, custom development, and reuse. For each reuse candidate, the amount of functionality represented by the process(s) was a relatively small percentage of the overall functionality of the system. Based on the assumption that reuse of small portions of functionality from a Title IV system were not justified based on the technical complexity involved in a reuse implementation, the remaining processes marked as reuse candidates, other than those with EDCAPS/GAPS as the reuse candidate, were marked "XX" and grouped with custom development candidates.

Project EASI/ED Subsystems and Processes	COTS Candidate	Re-Use Candidate	Outsourcing Candidate	Custom
Aid Origination and Disbursement Subsystem				
Reconcile Drawdown		X EDCAPS/GAPS	Х	
Reconcile SSIG Expenditure		X EDCAPS/GAPS	Х	
Reallocate Fund		X EDCAPS/GAPS, CBS	Х	
Check Origination			Х	
Edit School Disbursement Record			X	
Manage Lender Disbursement Information			Х	
Originate Consolidation Direct Loan			Х	
Process Participant Disbursement Request			Х	
Authorize Invoice and Schedule Disbursements			X	
Confirm Administrative Expense Allowances and Reinsurance Fee				x
Allocate Fund		X CBS		XX
Maintain Enrollment Status		X NSLDS		XX
Process Administrative Cost Allowance		X RFMS		XX
Process Interest Claim		X FFEL		XX
Process Special Allowance		X FFEL		XX
Authorize Drawdown School Disbursements		X EDCAPS/GAPS		
Manage Perkins Loan Cancellation		X EDCAPS/GAPS		
Manage State Sponsored Instructional Grant (SSIG)				
Authorization		X EDCAPS/GAPS		
Maintain Authorization Fund		X EDCAPS/GAPS, RFMS		
Process Initial Authorization		X EDCAPS/GAPS, RFMS		
	1			

Table E 3-1 Scenario 2: Aid Origination and Disbursement Subsystem Implementation Options

#### 3.2.5 Aid Repayment Subsystem Implementation Options

The implementation of the Aid Repayment subsystem has two feasible implementation option scenarios. The first scenario ranked implementation options by the following order of preference: outsourcing, COTS application, reuse, and custom development. Table E 3-10 presents the results of this grouping and the recommended choices of outsourcing and custom development. A COTS application is not an available choice in this scenario because the evaluation and recommendation of a COTS application was based on all seven processes being implemented using a COTS application. Since all of the processes recommended for COTS application, except Manage Fund Offset, are being implemented via outsourcing in this scenario, the lone process, Manage Fund Offset, was marked "XX" and grouped with custom development candidates.

Project EASI/ED Subsystems and Processes	COTS Candidate	F	Re-Use Candidate	Outsourcing Candidate	Custom
Aid Repayment Subsystem					
Assign Collection Agency	Х	Х	FFEL	Х	
Assign Defaulted Loan	Х	Х	FFEL	X	
Manage Wage Garnishment	Х	Х	FFEL	X	
Process Litigation Assignment	Х	Х	FFEL	X	
Track Participant	Х	Х	FFEL	X	
Manage Debt Collection	Х			Х	
Certify Loan Information		Х	LCS	Х	
Manage Aid Status		Х	LSS	Х	
Process Billing Information		Х	FFEL,LSS	Х	
Process Consolidation Request		Х	LCS	Х	
Manage Consolidation Loan Information				Х	
Manage Repayment Counseling				Х	
Process Loan Payment				Х	
Select Repayment Option				Х	
Manage Fund Offset	Х				XX

Table E 3-1 Scenario 1: Aid Repayment Subsystem Implementation Options

The second scenario grouped implementation options by COTS application, outsourcing, reuse, and custom development. Table E 3-11 presents the results of this grouping and the recommended choices of COTS application, outsourcing and custom development. Outsourcing is still an available choice in this scenario because of the similar nature of the functionality and volume of work.

Project EASI/ED Subsystems and Processes	COTS Candidate	Re	e-Use Candidate	Outsourcing Candidate	Custom
Aid Repayment Subsystem					
Assign Collection Agency	Х	Х	FFEL	Х	
Assign Defaulted Loan	Х	Х	FFEL	Х	
Manage Wage Garnishment	Х	Х	FFEL	Х	
Process Litigation Assignment	Х	Х	FFEL	Х	
Track Participant	Х	Х	FFEL	Х	
Manage Debt Collection	Х			Х	
Manage Fund Offset	Х				
Certify Loan Information		Х	LCS	X	
Manage Aid Status		Х	LSS	Х	
Process Billing Information		Х	FFEL,LSS	Х	
Process Consolidation Request		Х	LCS	Х	
Manage Consolidation Loan Information				Х	
Manage Repayment Counseling				Х	
Process Loan Payment				Х	
Select Repayment Option				Х	

Table E 3-2 Scenario 2: Aid Repayment Subsystem Implementation Options

The timeframes required to complete the SDLC for each of the implementation options in both scenarios is presented in Section 4 of this appendix. These timeframes can be used to determine what impact choosing one scenario over the other would have on the overall Project EASI/ED transition schedule.

#### 3.2.6 Decision Support System Subsystem Implementation Options

The implementation of the DSS subsystem was based one implementation option scenario since outsourcing was not a candidate. This scenario grouped implementation options by COTS application and reuse. Table E 3-12 presents the results of this grouping and the recommended choice of COTS application as the implementation option for the DSS subsystem.

Project EASI/ED Subsystems and Processes	COTS Candidate	Re-Use Candidate	Outsourcing Candidate	Custom
Decision Support Subsystem				
Exploration	Х	X NSLDS		
Trend Analysis and Exception Reporting	Х	X PEPS		
Simulation	Х			
Statistical Sampling	Х			

Table E 3-1 Scenario: Decision Support Subsystem Implementation Options

# 4. ALTERNATIVE PROJECT EASI/ED IMPLEMENTATION OPTION TIMEFRAME COMPARISON

This subsection presents the timeframes for the application SDLC for each of the implementation option scenarios.

#### 4.1 Project EASI/ED Subsystem Implementation Options – Scenario 1

This subsection presents the SDLC time for each of the implementation option projects. This combination of implementation options results from the reuse analysis.

Project EASI/ED Subsystems and	SDLC Time
Implementation Option Projects	in Years
Financial Services	
Project - COTS	1.4
Aid Application	
Project - Reuse	.7
Project - Custom	.6
<b>Program Management and Oversight</b>	
Project - Reuse	.7
Project - Reengineering	1.3
Project – COTS	.6
Project – Custom	1.8
Origination and Disbursement	
Project - Reuse	1.0
Project - Custom	.8
Aid Repayment	
Project - Reuse	1.0
Project - COTS	1.1
Project - Custom	.6
<b>Decision Support System</b>	
Project - COTS	1.5

Table E 4-1 Implementation Option Projects – Scenario 1

#### 4.2 Project EASI/ED Subsystem Implementation Options – Scenario 2

This subsection presents the SDLC time for each of the implementation option projects. This combination of implementation options results from selecting the most preferred (highest score) implementation option combination for each Project EASI/ED subsystem as presented in Table E 2-1 on page E-5.

Project EASI/ED Subsystems and Implementation Option Projects	SDLC Time in Years
Financial Services	
Project - COTS	1.4

Project EASI/ED Subsystems and Implementation Option Projects	SDLC Time in Years
Aid Application	
Project - Outsource	.7
Project - Custom	.9
Program Management and Oversight	
Project - Outsource	1.1
Project - COTS	1.4
Project – Custom	1.2
Origination and Disbursement	
Project - Outsource	1.1
Project - Reuse	.6
Project - Custom	.8
Aid Repayment	
Project - Outsource	1.3
Project - Custom	1.4
Decision Support System	
Project - COTS	1.5

Table C 4-1 Implementation Option Projects – Scenario 2

#### 4.3 Project EASI/ED Subsystem Implementation Options – Scenario 3

This subsection presents the SDLC time for each of the implementation option projects. This combination of implementation options results from selecting the second most preferred (second highest score) implementation option combinations as presented in Table E 2-1 on page E-5.

Project EASI/ED Subsystems and Implementation Option Projects	SDLC Time in Years
Financial Services	
Project - COTS	1.4
Aid Application	
Project - COTS	.8
Project - Custom	.7
Program Management and Oversight	
Project - COTS	1.5
Project - Outsource	1.0
Project – Custom	1.2
Origination and Disbursement	
Project - Outsource	1.1
Project - Custom	.8
Project - Reuse	.6
Aid Repayment	

Project EASI/ED Subsystems and Implementation Option Projects	SDLC Time in Years
Project - COTS	1.8
Project - Outsource	.9
Decision Support System	
Project - COTS	1.5

Table C 4-1 Implementation Option Projects – Scenario 3